### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-009783 Address: 333 Burma Road **Date Inspected:** 19-Oct-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Xu Yumin and Li Jia **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** OBG

### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**OBG** Assembly Yard

1AW & 1BW

This QA Inspector performed Ultra Sonic (UT) inspection of weld joint OBW1A-009 (side plate) utilizing scanning pattern D to detect transverse indication reflectors. Noted UT inspection was performed in conjunction with ABF UT Department.

See Caltrans's Ultrasonic Transverse Indication Evaluation report sheet dated 10-19-09 for future information on inspection performed on this work day.

1AE

SMAW welding performed on drip plate weld joint 011 located on DP737-001.

Welder is identified as Mr. Yun Chengxian (045138). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-Repair and repair procedure WR8115.

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#### NDT Observation

This QA Inspector observed ZPMC Ultra Sonic (UT) Technician performing UT on various locations in the trial assembly yard. Locations are as followed:

1. UT was performed and accepted on weld OBW1A-004 (side plate) repair area with a 70° wedge.

Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions in the trial assembly yard. Locations and description of work are as followed:

1. Carbine arc and grinding of build up welding performed on deck plate stiffeners located on crossbeam side of segment 1W per repair procedure CWR778.

For further information of weld buildup work in progress of above noted stiffeners, please refer to repair procedure CWR778 (Rev 1) and RFI 1904.

#### 1AAW+1AAW

This QA Inspector performed random Magnetic Particle Testing (MT) and observed 1 transverse linear indication and 1 longitudinal indication on CJP weld OBW1-001 (in UT accepted area). Y location of indications noted is approximately 3000mm off the cross beam side of segment. Area has not been tested nor accepted by ZPMC QC Department at this time.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

#### **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (134-8257-0045), who represents the Office of Structural Materials for your project.

Inspected By:	Alaniz,Joe	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer